Oxidation-induced Cu coating on steel surface

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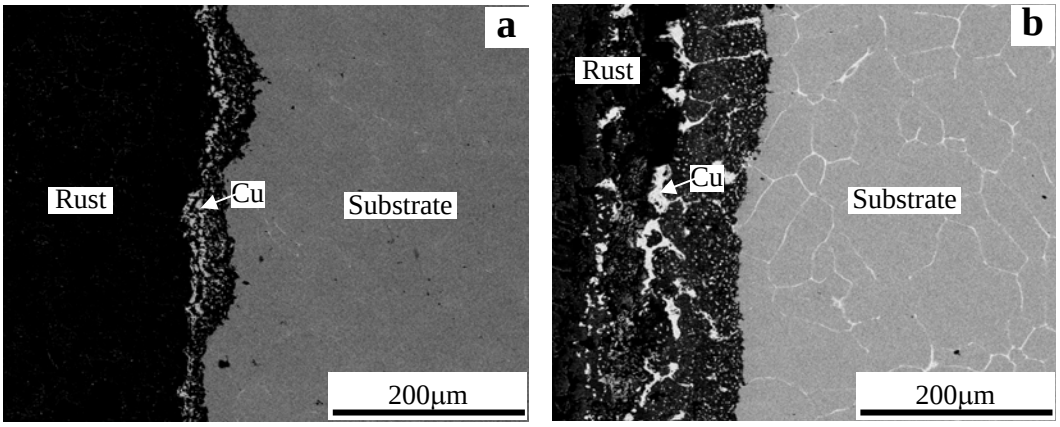

Fig.1 Back scattered electron images of the cross sections of the steel samples with 6.8%Cu (a) and 12.6%Cu (b) after heating at 1000℃ for 2h.

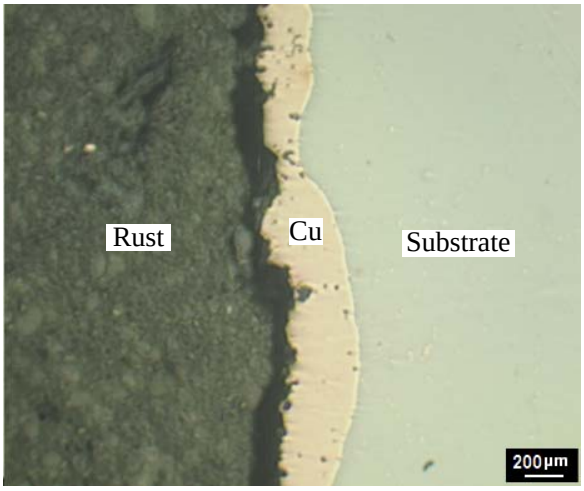

Fig.2 Optical microscope image of the inclined cross section of steel with 6.8%Cu after heating at 1150℃ for 2h.

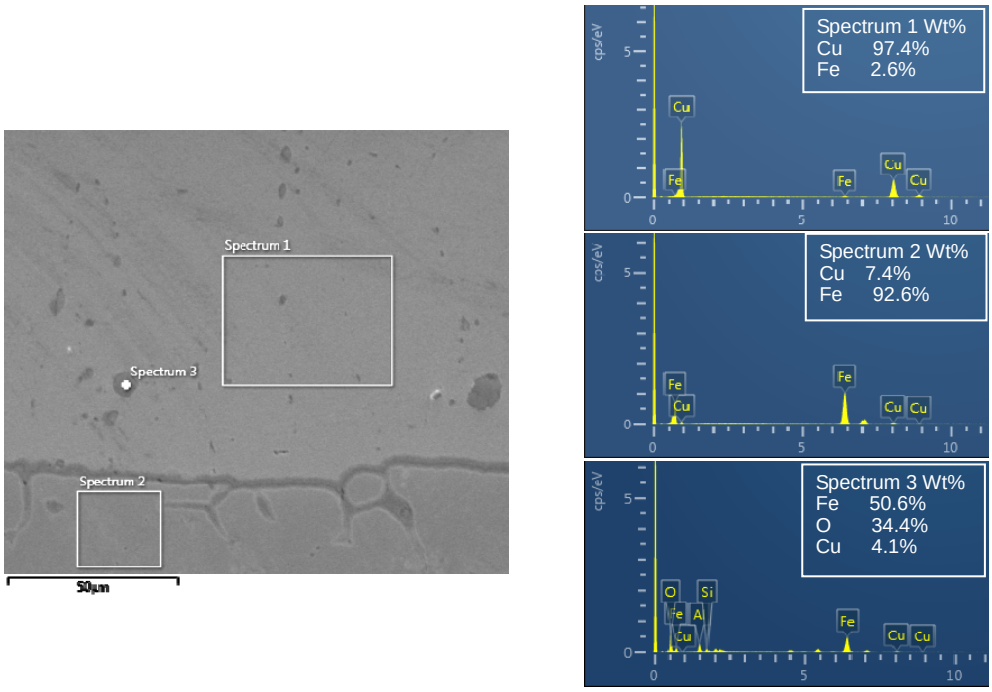

Fig.3 SEM morphology and EDX spectra of the substrate and Cu layer on the inclined cross section of steel with 6.8%Cu after heating at 1150℃ for 2h.

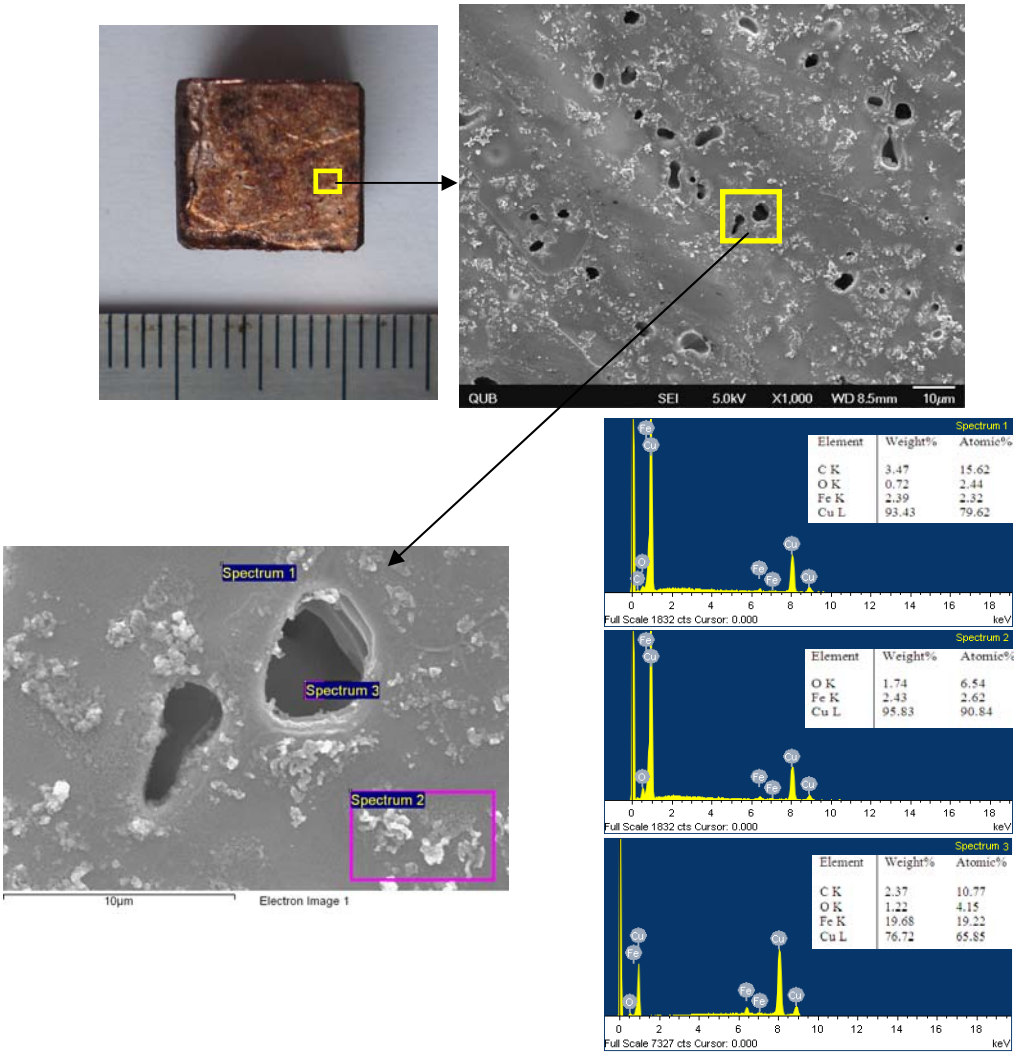

Fig.4 Macro-photograph, SEM morphology and EDX spectra of the surface of the steel with 12.6% Cu after descaling.